How Agile are companies in Luxembourg?

September 2019
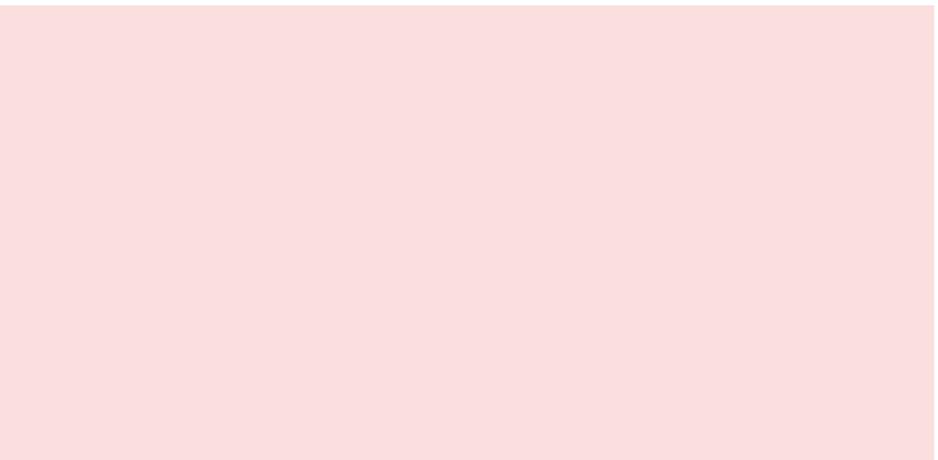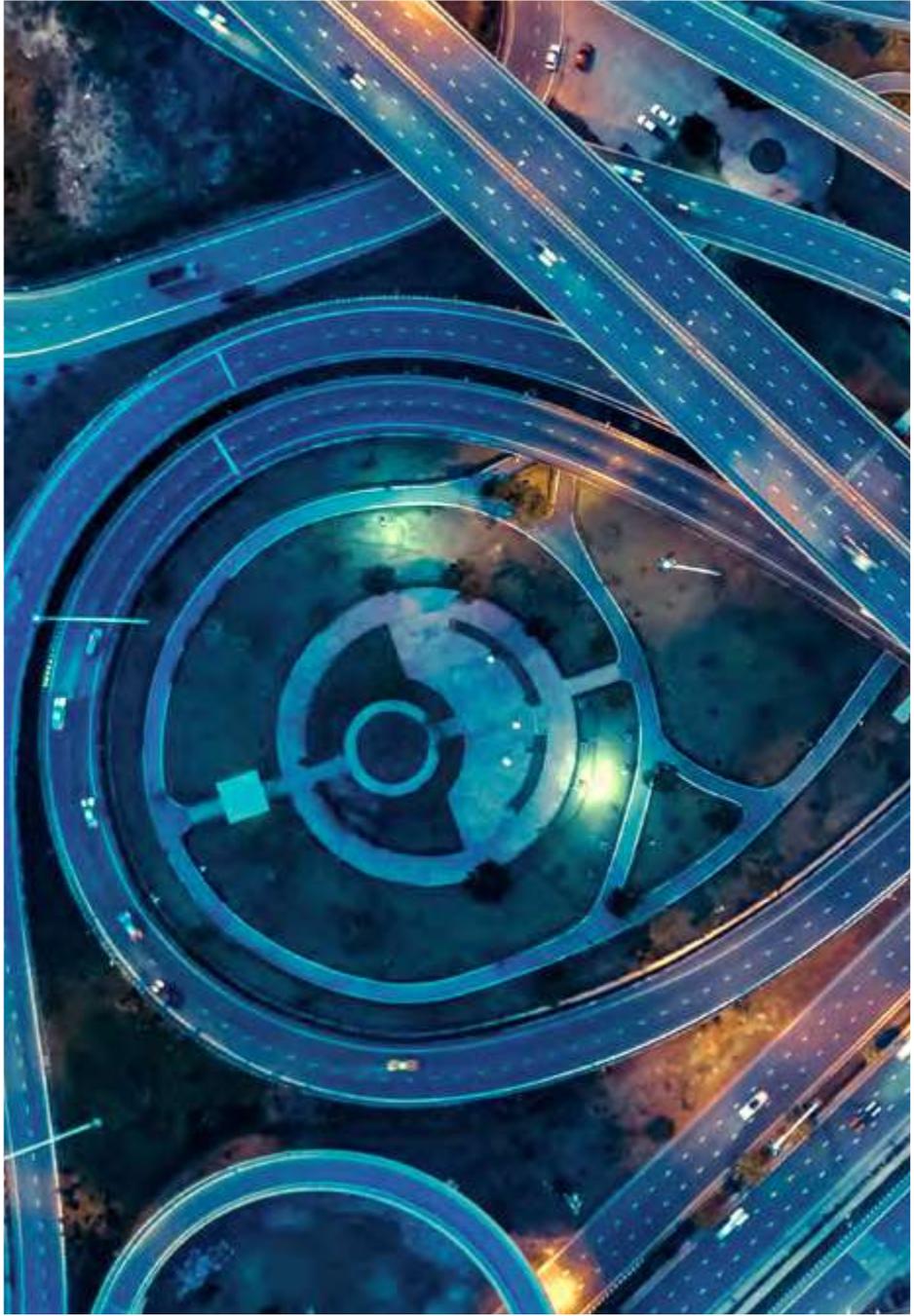
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PMI
LUXEMBOURG CHAPTER

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Foreword

PwC Luxembourg and the Project Management Institute (PMI) Luxembourg Chapter have been collaborating for more than seven years to support the project management profession. After the success of the first survey conducted in 2017, we decided to join forces once again for a second edition of the survey on Agile in Luxembourg companies.

Agile is a mindset. It is increasingly used to achieve concrete results from projects earlier and this enhances collaboration and innovation. In the survey, we observe several interesting improvements in the adoption of Agile, which is gaining greater visibility at all levels of organisations and is no longer considered an experimental approach for a few innovation projects.

This year, the PMI Chapters of Croatia and Poland launched a similar survey. You can find the results at the end of this report, which have been integrated into our analysis this year.

We would like to thank respondents for taking the time to share their thoughts and views on Agile.

Saskia Van Dyck
President of the PMI Chapter in Luxembourg

Thierry Kremser
Partner at PwC Luxembourg

Executive summary

Originally, Agile is a group of software development practices based on iterative and incremental development, where requirements and solutions evolve through collaboration between self-organising and cross-functional teams. Agile promotes adaptive planning, evolutionary development and delivery. It also encourages rapid and flexible response to change. In the last few years, many organisations have started adopting Agile practices to reap the benefits, not just for software development purposes, but for the company as a whole. With the accelerating pace of change, companies are trying to increase their agility.

This study reveals to what extent Agile is embedded in Luxembourg's multi-cultural companies and aslo in other countries as a comparison. The topics included in the study are: the level of adoption and adoption barriers vs. facilitators, the understanding of Agile within the organisation, as well as the Agile practices used.

Here are our key findings:

1 Agile is perceived as a state of mind, a philosophy that should be used as a lever for both creation and innovation.

2 Agile has now been adopted by the Management level of Luxembourgish organisations.

3 More and more Luxembourgish companies would like to integrate Agile into all levels of their organisation.

4 Companies understand that Agile can also be applied for other purposes than just IT-related projects. Most projects within a company could actually benefit from it.

5 Agile-related roles such as Agile champions are increasingly present within the workforce of companies in Luxembourg.

6 Luxembourgish companies still have a long way to go to meet their expectations for the future.

7 Resistance to change does not facilitate the application of Agile methods.

8 Agile has proven it brings the value management was expecting: reducing delivery time and boosting competitiveness.

9 Companies have admitted that if they had the chance to start their projects, again in Agile, they would start with a concrete training programme and coaching.

Agile has become an important subject when it comes to delivering change in Luxembourg. Its practices are, however, still experimental and far from being industrialised. However, Luxembourg's level of adoption of Agile is comparable to the progress made in other countries.

1 For further details, please refer to the 10th (2016) and 11th (2017) Annual State of Agile Reports published by VersionOne.

How do companies in Luxembourg understand Agile in 2019?

Vision of Agile

"

Agile is perceived as a state of mind, a philosophy that should be used as a lever for both creation and innovation...

Today,

the majority of Luxembourgish companies define Agile as a state of mind and a project or application development methodology that places the end user at the heart of IT activities.

Furthermore, this philosophy is also now perceived as a lever for both organisational transformation and innovation.

73% of interviewed companies

define Agile as a culture / state of mind

69% of interviewed companies

define Agile as a project or application development methodology

46% of interviewed companies

define Agile as a lever for organisational transformation

24% of interviewed companies

define Agile as an innovation approach

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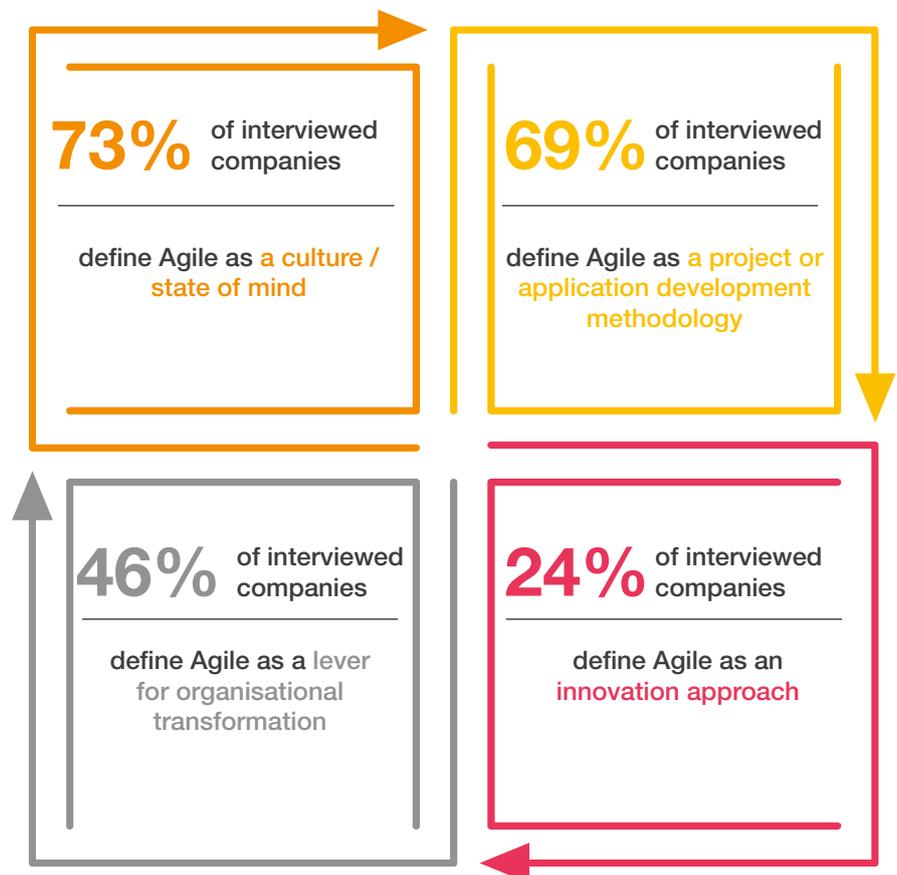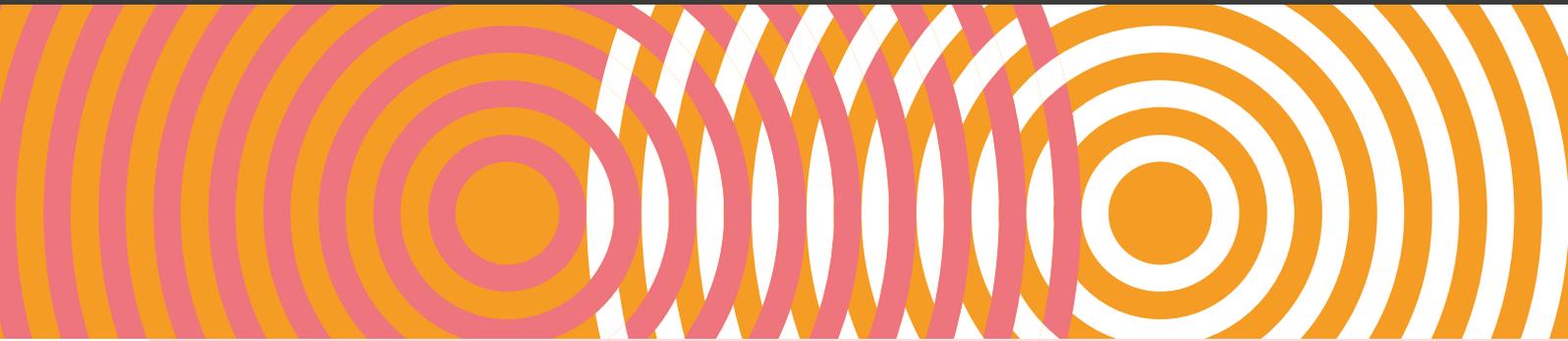
Agile has now been adopted by the Management level of Luxembourgish organisations.

1 How do companies in Luxembourg understand Agile in 2019?

"

Luxembourgish companies still have a long way to go to meet their expectations for the future.

Luxembourgish companies stagnate at experimental levels. The majority of the interviewees said they used Agile tu run less than 10% of their projects this year. Moreover, most of these projects have relied mainly on basic Agile methods such as Scrum or Kanban.

What is the level of adoption of Agile in your organisation today?
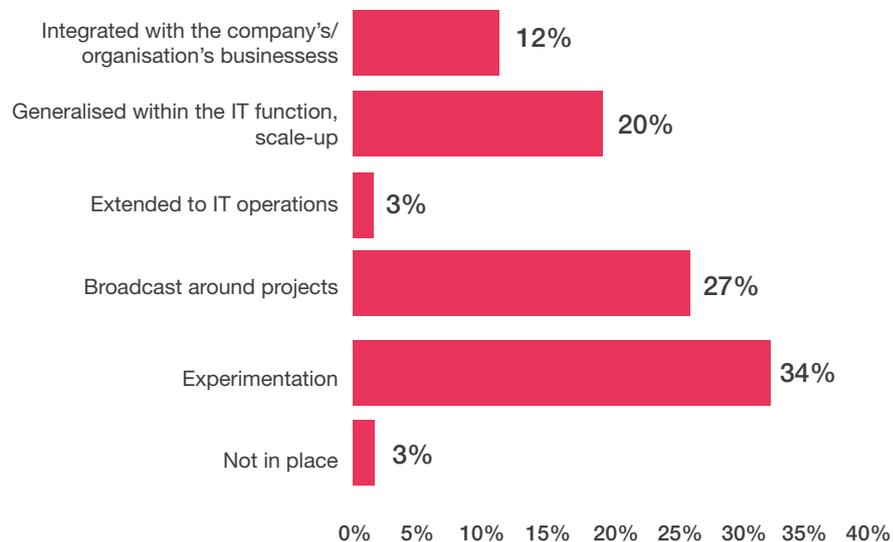
Category	Percentage
Integrated with the company's/organisation's businessess	12%
Generalised within the IT function, scale-up	20%
Extended to IT operations	3%
Broadcast around projects	27%
Experimentation	34%
Not in place	3%

0% 5% 10% 15% 20% 25% 30% 35% 40%

"

More and more Luxembourgish companies would like to integrate Agile into all levels of their organisation.

At what level of adoption would you expect to be in 2-3 years?

2% Not in place
10% Experimentation
15% Broadcast around projects
7% Extended to IT operations
20% Generalised within the IT function, scale up
12% Extended to support functions of the company/organisation
34% Integrated with the organisation's business

2021

| 0% | 20% | 40% | 60% | 80% | 100% |
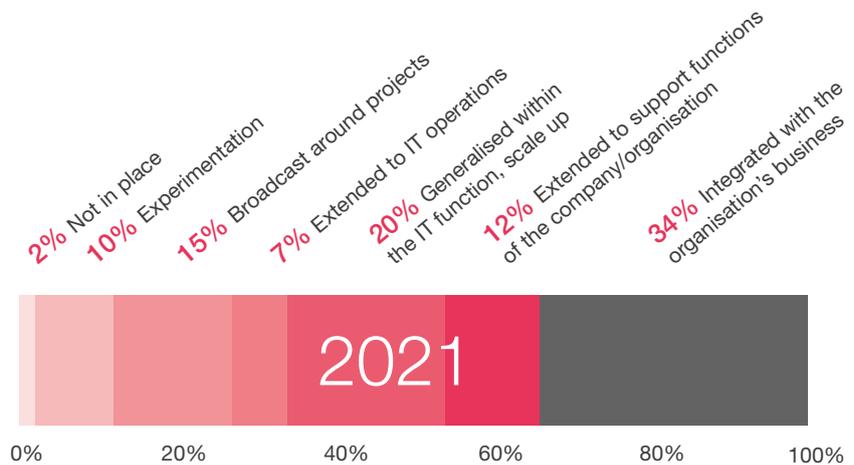
One of the biggest challenges for Luxembourg companies is to integrate Agile into their business lines. **34%** of respondents are targetting this objective for the 2-3 years to come.

How do companies in Luxembourg understand Agile in 2019?

Application of Agile

"

Companies understand that Agile can also be applied for other purposes than just IT related projects. Most projects within a company could actually benefit from it.

In 2019,

digital projects, Proof-of-Concept (PoC) and creation of new services/products are the main application areas of Agile.

What are the application areas of Agile?
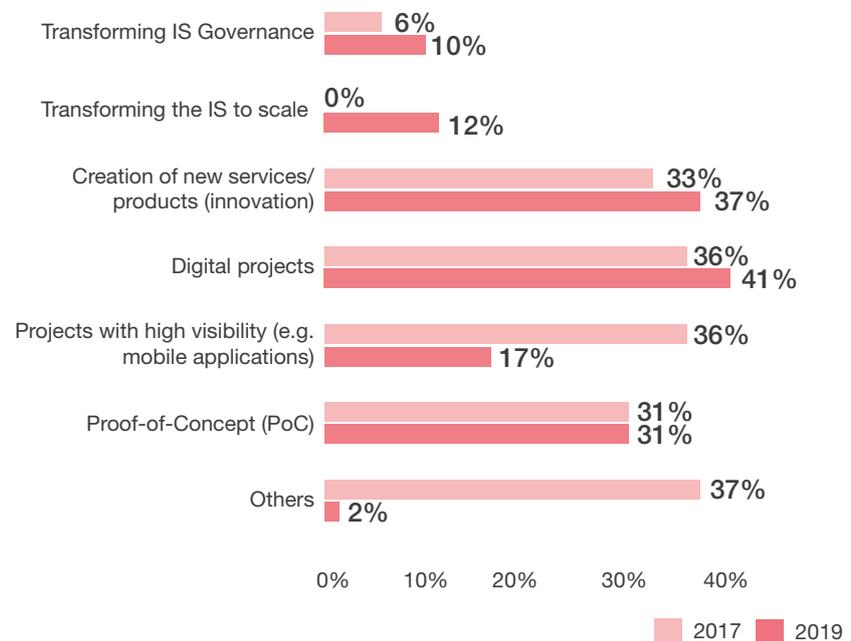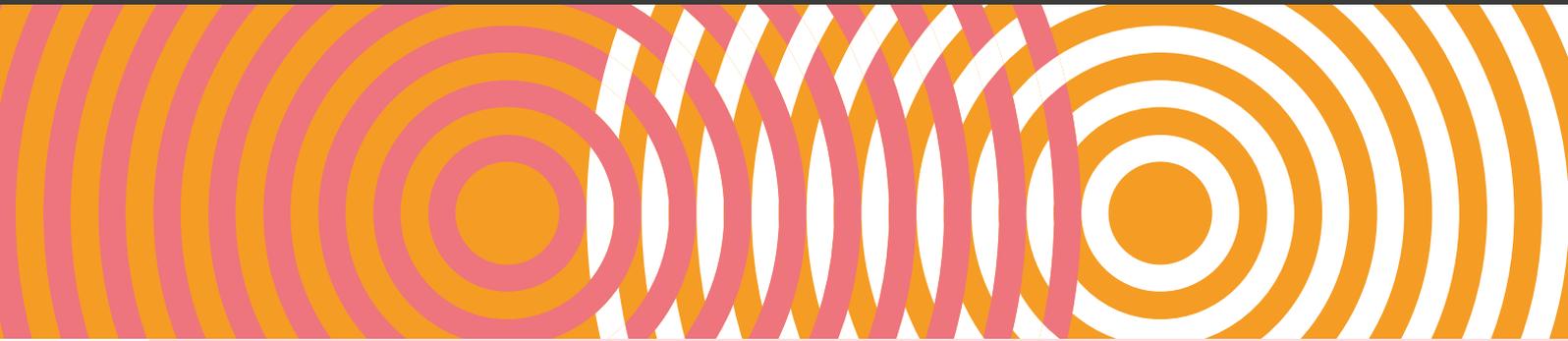
Application area	2017	2019
Transforming IS Governance	6%	10%
Transforming the IS to scale	0%	12%
Creation of new services/products (innovation)	33%	37%
Digital projects	36%	41%
Projects with high visibility (e.g. mobile applications)	36%	17%
Proof-of-Concept (PoC)	31%	31%
Others	37%	2%

0%   10%   20%   30%   40%

☐ 2017   ☐ 2019

"

Agile-related roles such as Agile champions are increasingly present within the workforce of companies in Luxembourg.

1 How do companies in Luxembourg understand Agile in 2019?

Barriers for Agile

" Resistance to change does not facilitate the application of Agile methods.

53%

of interviewed companies estimate that their work culture is too rooted in traditional methodologies to endorse Agile. In addition, the resistance to change and a lack of skills prevent them to make the most of Agile methods. Although we note a slight decrease compared to 2017, these factors remain the main barriers to an Agile adoption.

What are the main barriers to the Agile adoption?

Barrier	Percentage
No barriers	3%
Resistance to change	46%
Lack of Agile skills	49%
Culture too rooted in traditional methodologies	53%
Lack of means to bring transformation into business	25%
Lack of budget	12%
Technical debt	19%
Management Behavior / Lack of Sponsorship	41%
Others	7%

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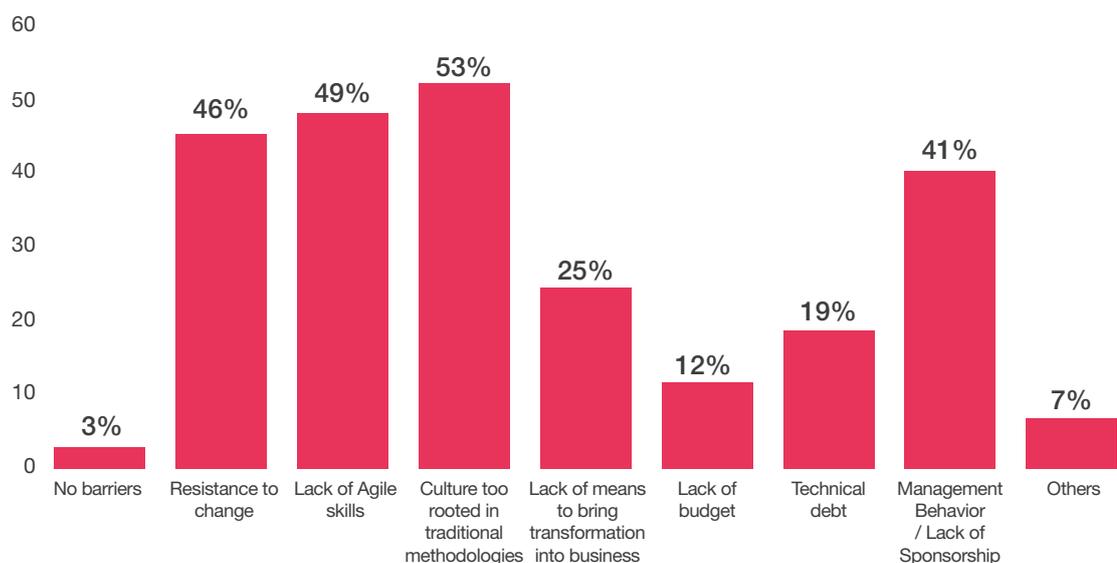
Perception of the market

> Agile boosts new ways of collaboration and the capacity for innovation.

39%
of companies estimate that Agile **boosts new ways of collaboration.**

19%
of companies estimate that Agile **decreases project completion time**.

30%
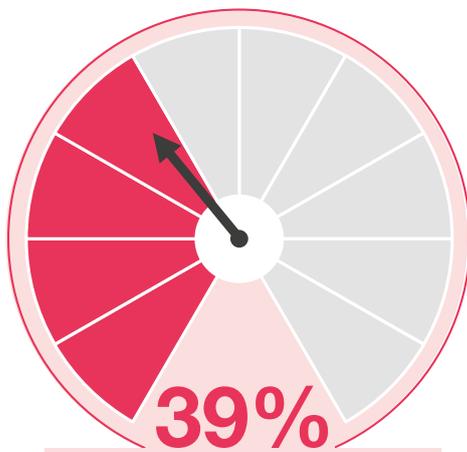of companies estimate that Agile **boosts the capacity for innovation.**
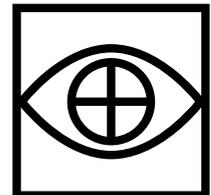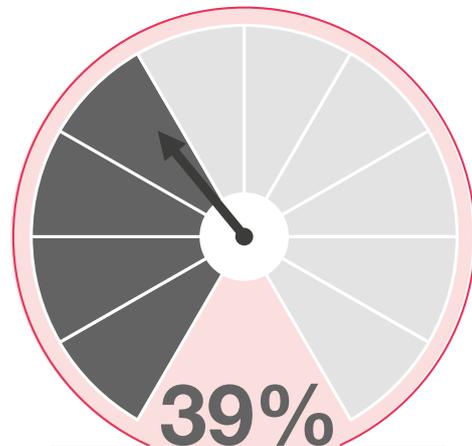
15%
of companies estimate that Agile **improves customer satisfaction**.

> "Agile has proven it brings the value management was expecting: reducing delivery time and boosting competitiveness.

39%
Reduced delivery time

39%
Growth in productivity and competitiveness

1

How do companies in Luxembourg understand Agile in 2019?

Practices to facilitate Agile adoption

"

While the implementation of Proof-of-Concept (PoC) is still ahead of the practices used to facilitate Agile adoption...

Which practices have been implemented/need to be implemented for Agile adoption?

Practice	to implement	implemented
Evolution of the role of manager and governance	31%	19%
Training and Coaching	37%	37%
Implemention of the Design Thinking Process	24%	15%
Adoption of the Lean StartUp approach	12%	5%
Deployment of collaborative tools and visual management	39%	25%
Collaboration with Universities/Schools	3%	8%
Creation of cross functional communities	37%	22%
Creation of Labs (FabLab) or a Digital Showroom	3%	15%
Launch of Hackaton (immersion and creativity event) or ideation workshops	5%	12%
Implementation of Proof-of-Concept (PoC)	32%	46%
N/A	2%	2%

■ to implement   ■ implemented

"

...There is also a genuine need in terms of collaboration and people.

39%

of companies estimate they need to deploy **collaborative tools and visual management** but only 25% have effectively implemented them.

37%

of companies estimate they need to **create cross functional communities** but only 22% have effectively implemented them.

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How do companies in Luxembourg understand Agile in 2019?

"

Companies have admitted that if they had the chance to start their projects, again in Agile, they would start with a concrete training programme and coaching.

37%

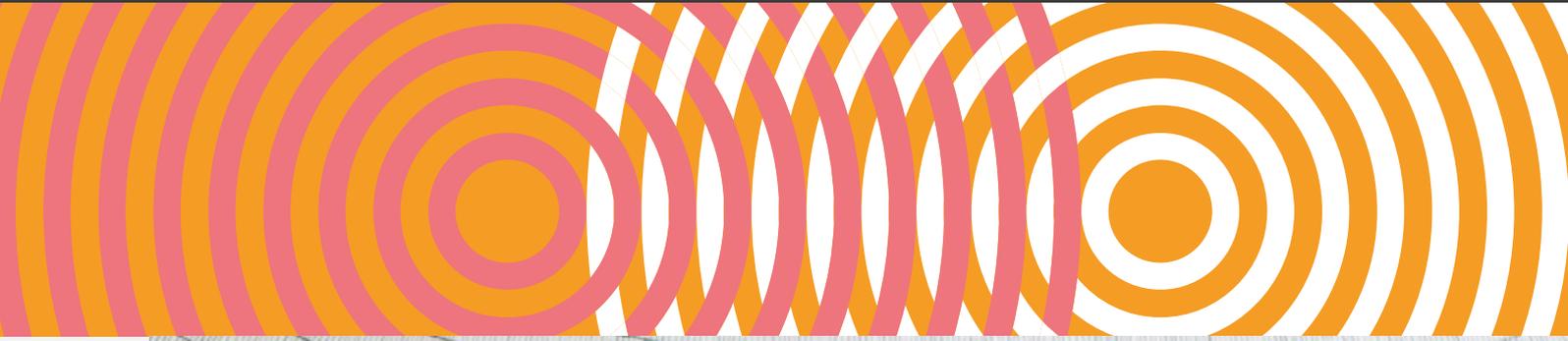of companies estimate that **training sessions and coaching** are the key factors for a good implementation of Agile in their projects.

Have the 2017 expectations of Luxembourg companies been reached?

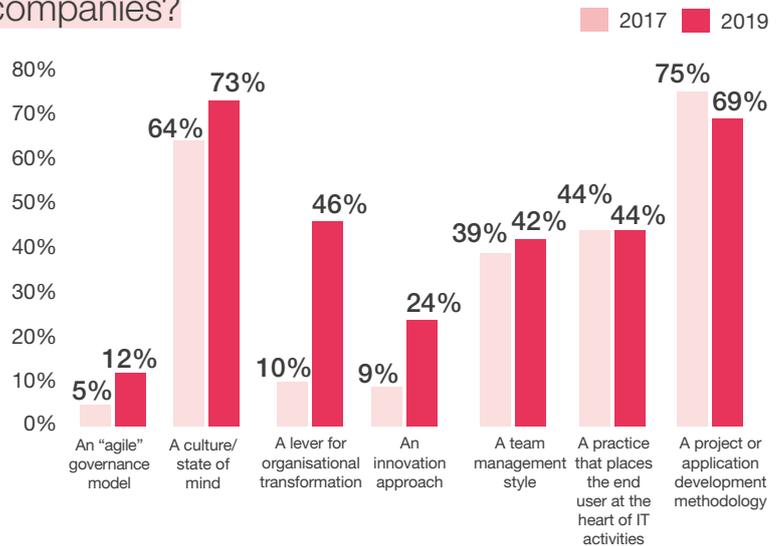## How has the situation evolved over the past 2 years?

" The perception of Agile has evolved...

The understanding of Agile is changing and is becoming a broader concept within the organisation. Today, it is more about a state of mind than a methodology for IT projects.

Indeed, in 2017 only 10% of companies saw Agile as a lever for organisational transformation while today, almost half of the respondents consider this idea.

Another significant difference is that today, Luxembourg companies consider Agile an innovation approach.

What does Agile mean for Luxembourg companies?

Legend: 2017, 2019

- An "agile" governance model: 5% / 12%
- A culture/state of mind: 64% / 73%
- A lever for organisational transformation: 10% / 46%
- An innovation approach: 9% / 24%
- A team management style: 39% / 42%
- A practice that places the end user at the heart of IT activities: 44% / 44%
- A project or application development methodology: 75% / 69%

" And it expands now to other functions than IT...

The areas of Agile application are similar to the ones observed in 2017.

What are the application areas of Agile?

Legend: 2017, 2019

- Transforming IS Governance: 6% / 10%
- Transforming the IS to scale: 0% / 12%
- Creation of new services/products (innovation): 33% / 37%
- Digital projects: 36% / 41%
- Projects with high visibility (e.g. mobile applications, etc.): 36% / 17%
- Proof-of-Concept (PoC): 31% / 31%
- Others: 37% / 2%
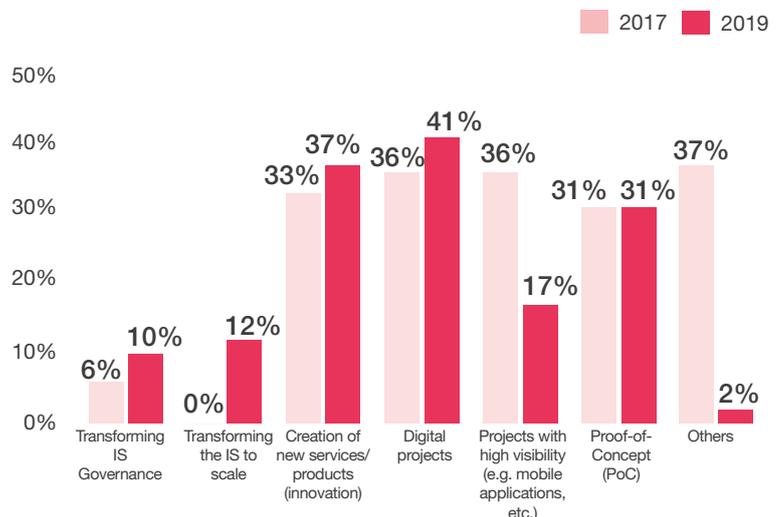
> ## " The level of Agile adoption has not really increased since 2017.

We don't observe a significant improvement in the overall adoption of Agile.

What is the level of adoption of Agile in your organisation today?

Legend: 2017, 2019

- Not in place: 8.8% (2017), 3% (2019)
- Experimentation: 35% (2017), 34% (2019)
- Broadcast around projects: 18% (2017), 27% (2019)
- Extented to IT operations: 6% (2017), 3% (2019)
- Generalised within the IT function, scale-up: 12% (2017), 20% (2019)
- Extented to support functions of the company/organisation: 6% (2017), 0% (2019)
- Integrated with the company's/organisation's businessess: 15% (2017), 12% (2019)
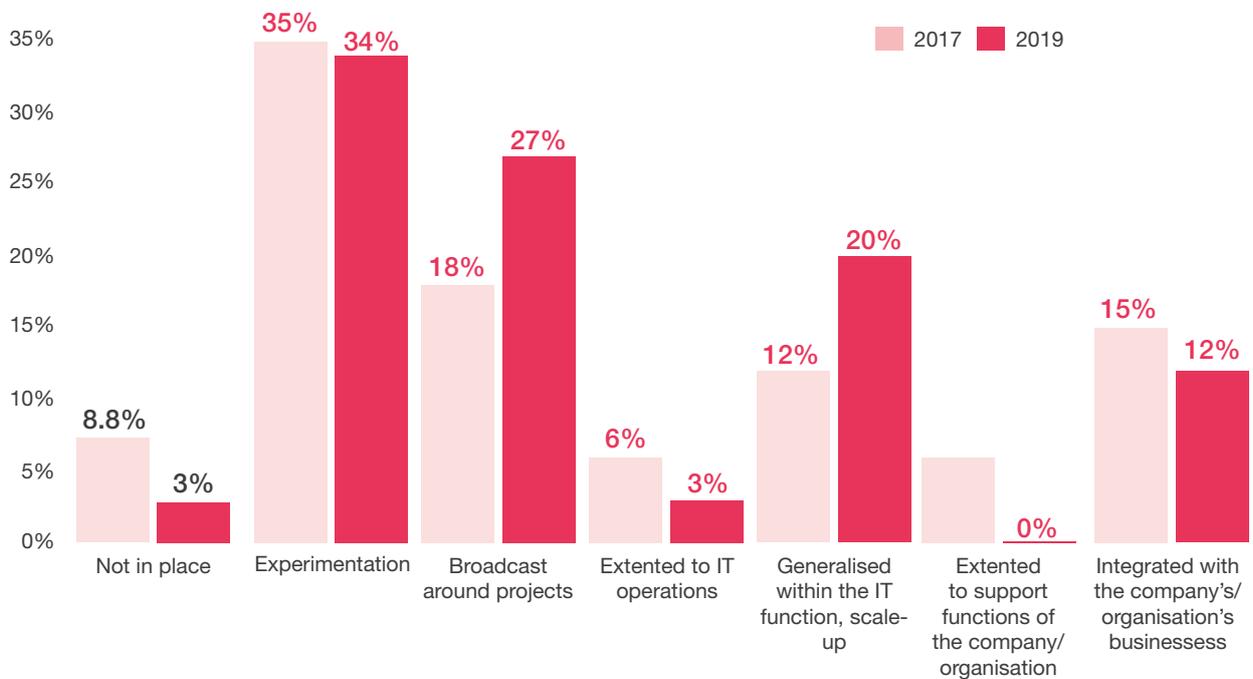
How has Agile been adopted in other countries?

What is the adoption level of Agile?

> "
> Luxembourg adoption of Agile is slightly better than Croatia and Poland.

This year, the PMI Chapters of Croatia and Poland launched a similar survey. In this section, we do a comparison between Poland, Croatia and Luxembourg to better identify Agile challenges at the European Level.

What is the level of adoption of Agile in your organisation today?
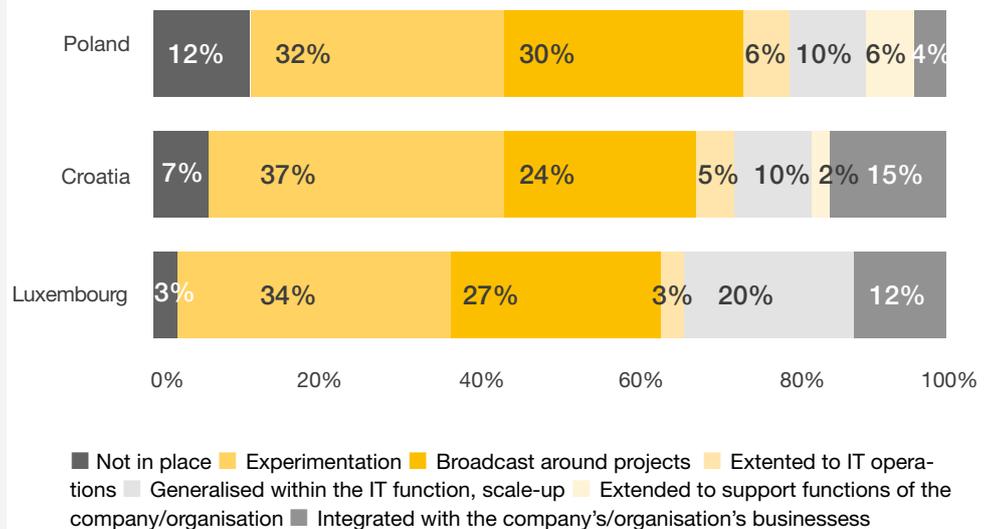
Country	Not in place	Experimentation	Broadcast around projects	Extented to IT operations	Generalised within the IT function, scale-up	Extended to support functions	Integrated with the company's businesses
Poland	12%	32%	30%	6%	10%	6%	4%
Croatia	7%	37%	24%	5%	10%	2%	15%
Luxembourg	3%	34%	27%	3%	20%		12%

Legend: 0% – 100%

■ Not in place ■ Experimentation ■ Broadcast around projects □ Extented to IT operations □ Generalised within the IT function, scale-up □ Extended to support functions of the company/organisation ■ Integrated with the company's/organisation's businessess
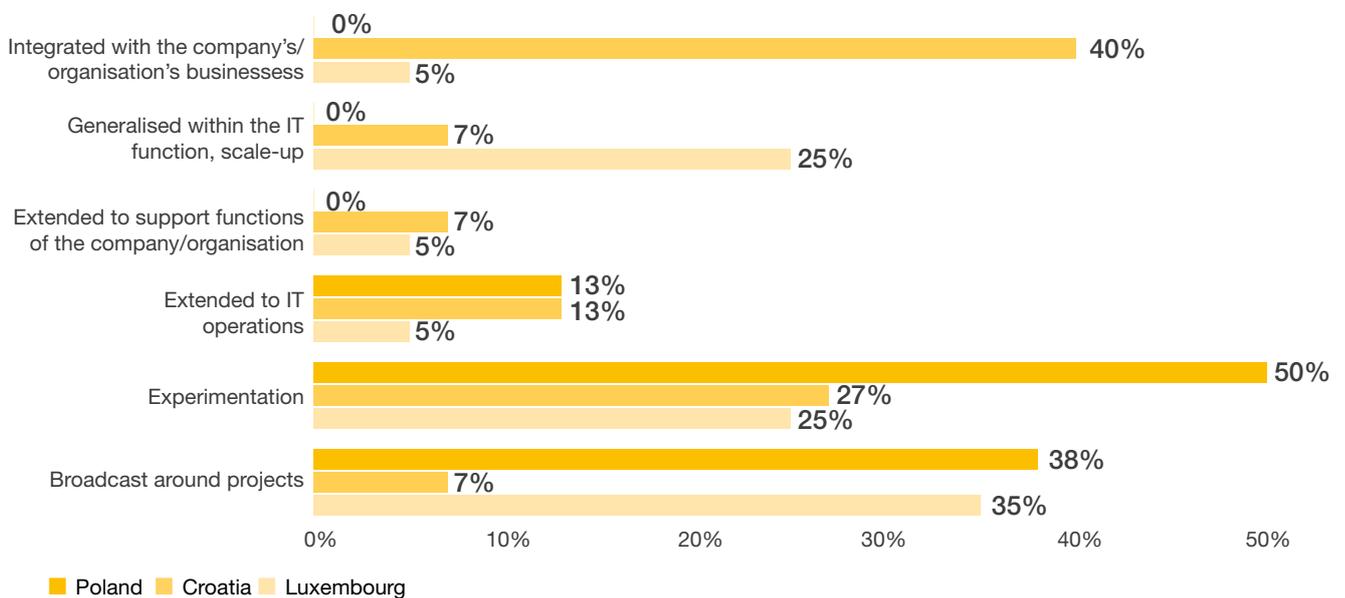
What are the countries' visions on Agile for the coming years?

> " There are very few similarities in terms of vision for the 3 countries.

What is the expected level of adoption of Agile by organisations that are in the experimentation level today (in two years for now)?

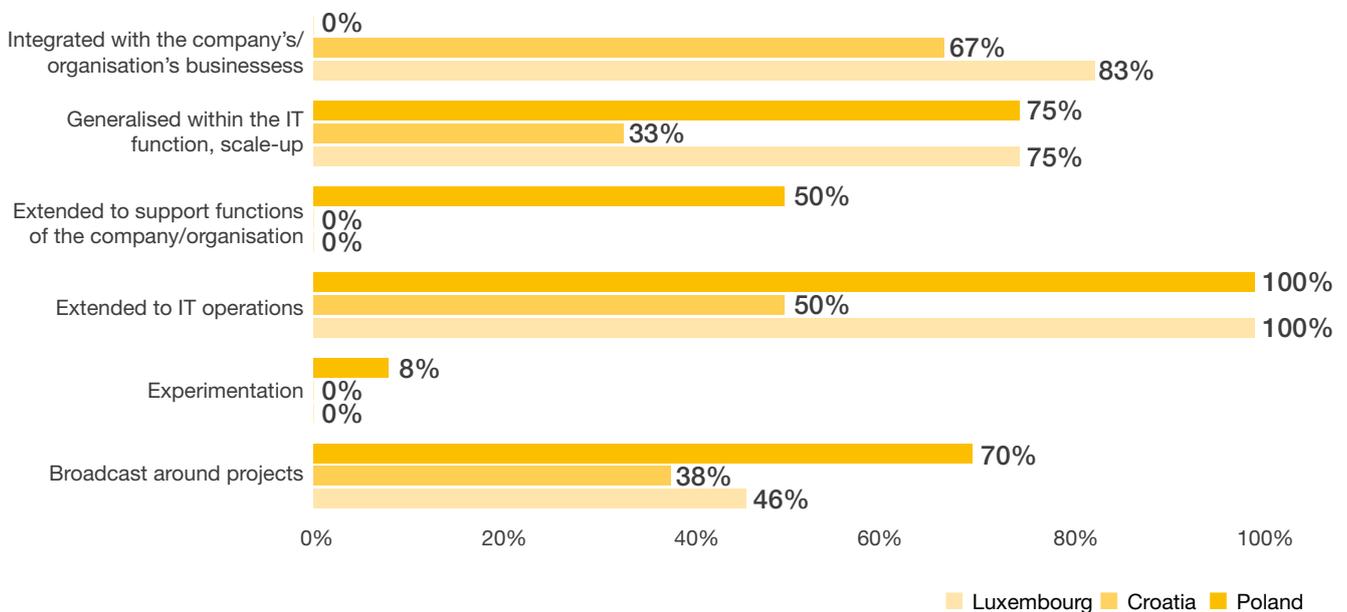| Level	Poland	Croatia	Luxembourg
Integrated with the company's/organisation's businessess	0%	40%	5%
Generalised within the IT function, scale-up	0%	7%	25%
Extended to support functions of the company/organisation	0%	7%	5%
Extended to IT operations	13%	13%	5%
Experimentation	50%	27%	25%
Broadcast around projects	38%	7%	35%

■ Poland ■ Croatia ■ Luxembourg

How has Agile been adopted in other countries?

Is there trust in Agile by companies?

"
Companies that have extended the use of Agile in their IT operations tend to use Agile in all their projects.
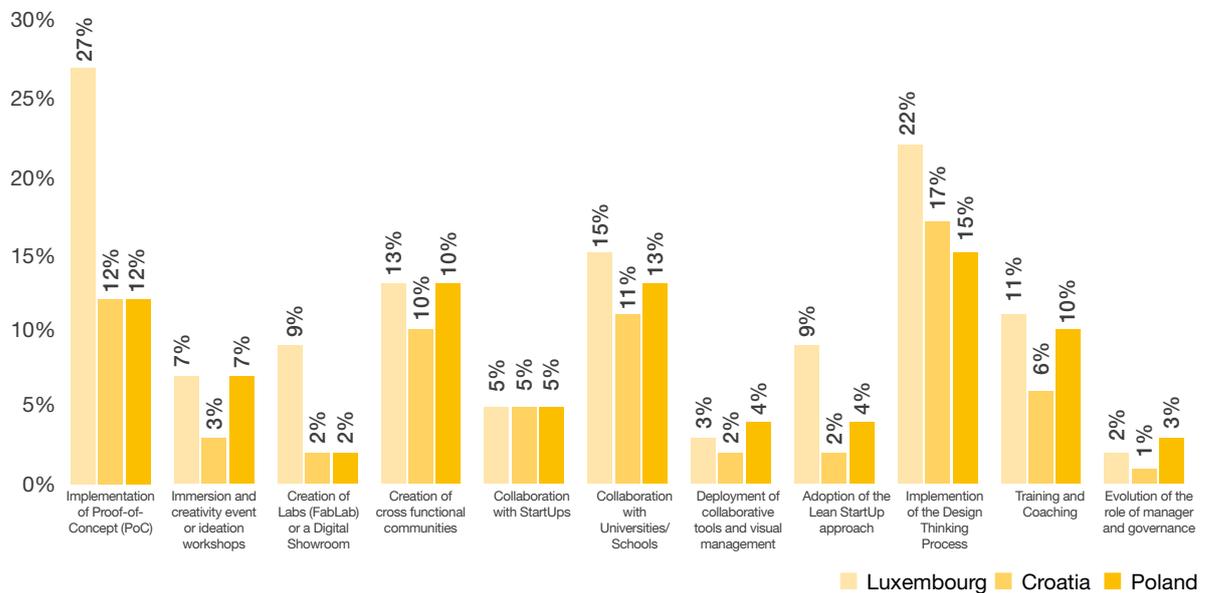

What is the adoption level of Agile in companies using it in more than 50% of their projects?

Category	Luxembourg	Croatia	Poland
Integrated with the company's/ organisation's businessess	83%	67%	0%
Generalised within the IT function, scale-up	75%	75%	33%
Extended to support functions of the company/organisation	0%	50%	0%
Extended to IT operations	100%	100%	50%
Experimentation	0%	8%	0%
Broadcast around projects	46%	70%	38%

Luxembourg   Croatia   Poland

What practices support Agile implementation?

> " Luxembourg supports the adoption of Agile with the greatest variety of tools.

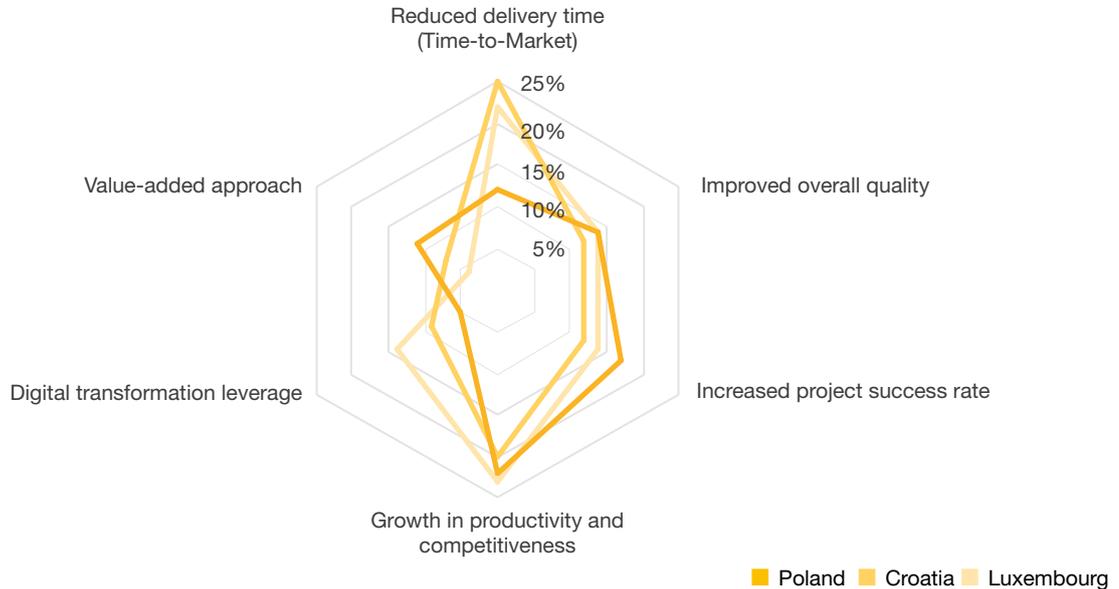## What are the practices used to support the adoption of Agile?

Bar chart comparing practices used to support the adoption of Agile across Luxembourg, Croatia, and Poland.

Practice	Luxembourg	Croatia	Poland
Implementation of Proof-of-Concept (PoC)	27%	12%	12%
Immersion and creativity event or ideation workshops	7%	3%	7%
Creation of Labs (FabLab) or a Digital Showroom	9%	2%	2%
Creation of cross functional communities	13%	10%	10%
Collaboration with StartUps	5%	5%	5%
Collaboration with Universities/Schools	15%	11%	13%
Deployment of collaborative tools and visual management	3%	2%	4%
Adoption of the Lean StartUp approach	9%	2%	4%
Implemention of the Design Thinking Process	22%	17%	15%
Training and Coaching	11%	6%	10%
Evolution of the role of manager and governance	2%	1%	3%

Luxembourg Croatia Poland

How has Agile been adopted in other countries?

What practices support Agile implementation?

> " Productivity amplification is the key common goal of companies that follow Agile in the three analysed countries.
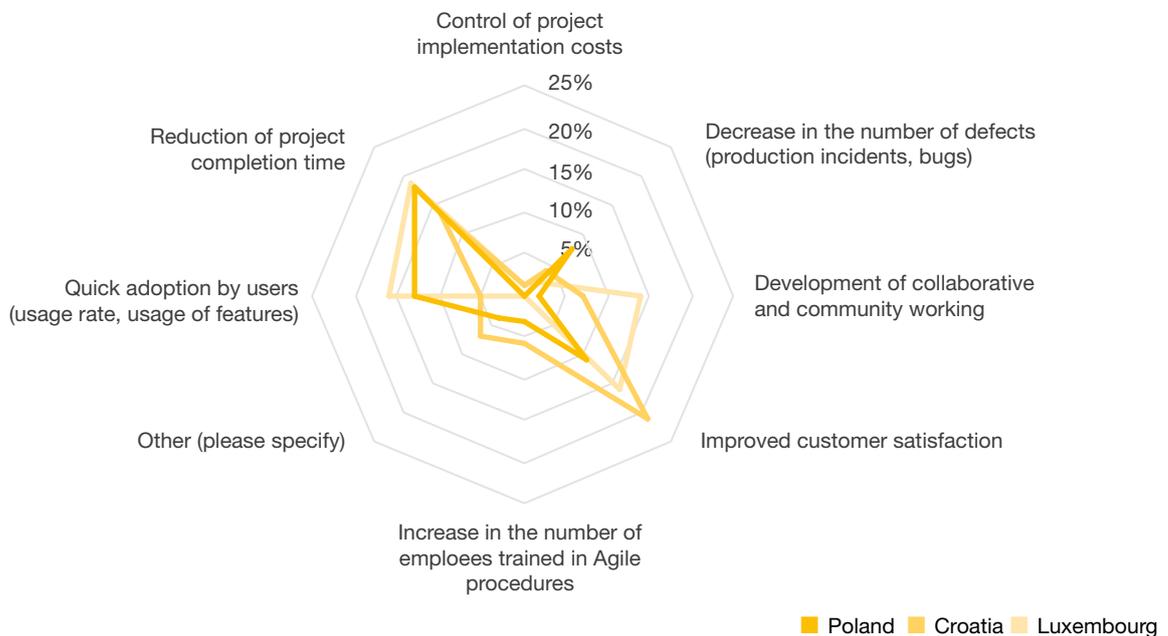
What are the expectations of management concerning Agile implementation?

Reduced delivery time
(Time-to-Market)

25%
20%
15%
10%
5%

Improved overall quality

Value-added approach

Increased project success rate

Digital transformation leverage

Growth in productivity and
competitiveness

■ Poland ■ Croatia ■ Luxembourg

How do companies monitor Agile success?

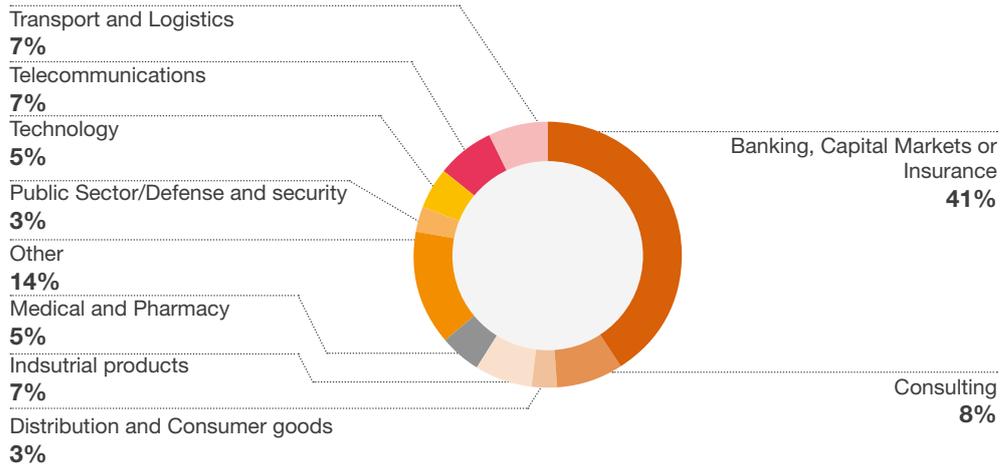> "Companies monitor mainly the time-related results of their projects in all countries.

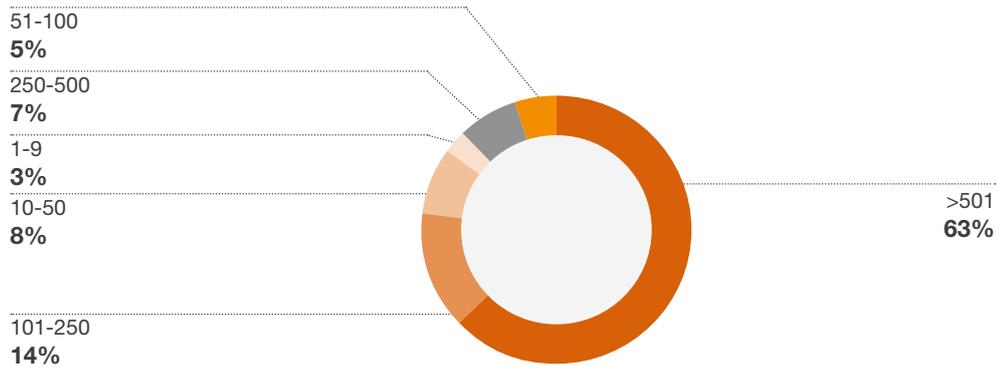## How do you primarily measure the success and benefits of your Agile efforts?

Radar chart axes:
- Control of project implementation costs
- Decrease in the number of defects (production incidents, bugs)
- Development of collaborative and community working
- Improved customer satisfaction
- Increase in the number of emploees trained in Agile procedures
- Other (please specify)
- Quick adoption by users (usage rate, usage of features)
- Reduction of project completion time

Scale: 5% 10% 15% 20% 25%

Legend: Poland | Croatia | Luxembourg

4 Profile of respondents

Business sector of interviewed companies

Transport and Logistics
7%

Telecommunications
7%

Technology
5%

Public Sector/Defense and security
3%

Other
14%

Medical and Pharmacy
5%

Indsutrial products
7%

Distribution and Consumer goods
3%

Banking, Capital Markets or Insurance
41%

Consulting
8%

Size of interviewed company/organisation (Full Time Equivalent)

51-100
5%

250-500
7%

1-9
3%

10-50
8%

101-250
14%

>501
63%

5 Methodology

- The PMI Luxembourg Chapter and PwC Luxembourg led this survey in three countries: **Luxembourg, Croatia and Poland.**

- It's the second time this survey is conducted on the Luxembourgish market (first report in 2017) and the first time in Croatia and Poland.

- The questionnaire was administrated between 1 April and 25 April 2019.

- A team of volunteers, both from PMI and PwC, accompanied by the local teams (in Croatia and Poland) and supported by the PMI Europe Office staff in Brussels, was built to conduct this survey and consolidate the statistics.

- The PMI European Chapter Collaboration (ECC) initiative also sponsored the project.

- Our research used a quantitative methodology based on the same questionnaire used in 2017.

- The questionnaire comprises 31 questions exploring four areas of interest regarding Agile:
  1. degree of adoption by companies,
  2. interpretation and understanding of Agile,
  3. methodology of implementation,
  4. evaluation of results and lessons learned.

- The questionnaire used simple dichotomous and multiple-choice questions allowing for responses with additional comments.

- The survey was voluntary, anonymous and open to all public.

- 59 questionnaires were administrated in Luxembourg.

- An event was held on 18 September 2019 to share key insights of this survey.
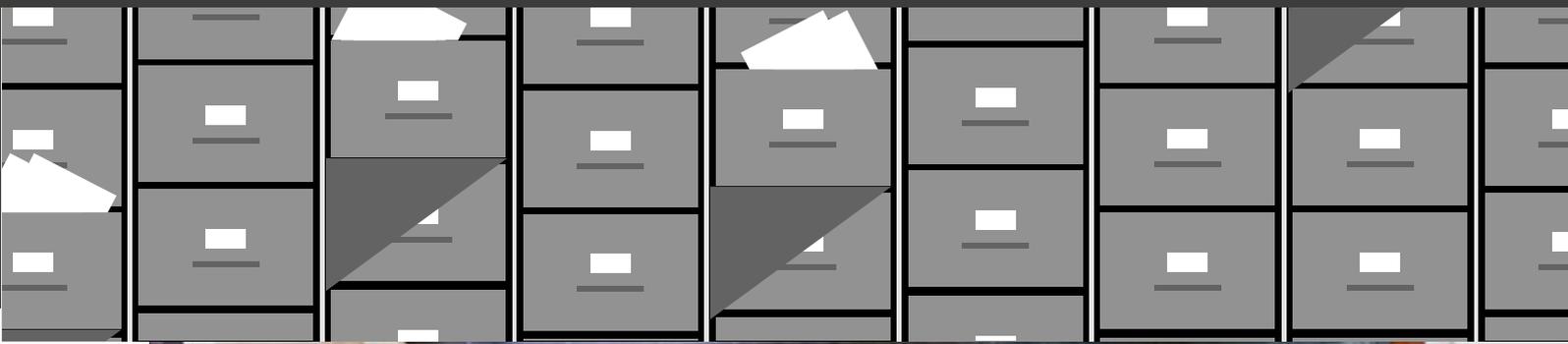
About the Project Management Institute (PMI)

Founded in 1969, PMI is the leading not-for-profit professional membership association for the project management profession. PMI advances careers, improves organizational success and further matures the profession of project management through globally recognized standards, certifications, resources, tools, academic research, publications, professional development courses and networking opportunities.
As local Chapter of PMI since 2010, the PMI Luxembourg Chapter has as its mission to provide project management professionals in Luxembourg a platform for knowledge sharing and networking.

About PwC

PwC Luxembourg (www.pwc.lu) is the largest professional services firm in Luxembourg with 2,870 people employed from 76 different countries. PwC Luxembourg provides audit, tax and advisory services including management consulting, transaction, financing and regulatory advice. The firm provides advice to a wide variety of clients from local and middle market entrepreneurs to large multinational companies operating from Luxembourg and the Greater Region. The firm helps its clients create the value they are looking for by contributing to the smooth operation of the capital markets and providing advice through an industry-focused approach.

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 158 countries with over 250,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com and www.pwc.lu.
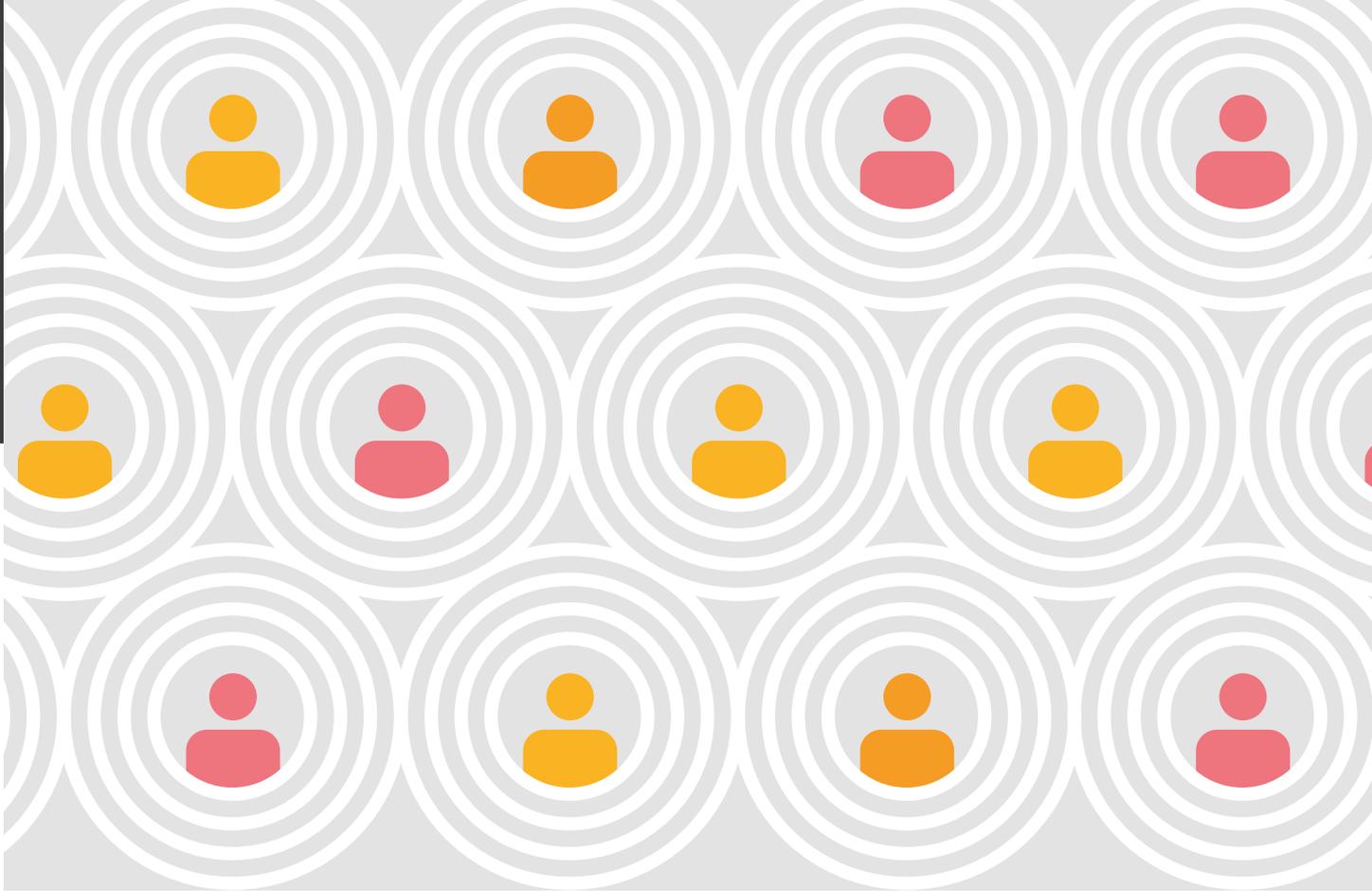
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